

### Abstract of the Disclosure

A control system is disclosed for controlling data flow over a data-  
5 packet-network according to specific destinations. The system has a network  
monitoring system for monitoring network performance parameters; a  
network access system for accessing specific nodes in the network; and a  
control software executable on the network access system for assigning and  
changing cost parameters at selected nodes in the network. A network  
10 administrator uses the network access system and control software to assign  
and implement cost values at the selected nodes, the values associated  
individually with a specific destination or destinations, the values establishing  
forwarding costs to be incurred at the selected nodes, and link costs to be  
incurred per data link between the nodes such that manipulation of such cost  
15 value assignments enables load balancing of data traveling through the  
network. In one embodiment the data-packet-network is internal to a router  
and nodes comprise internal router cards.